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ABSTRACT

The validity of the Self Concept as a Learner Revised (SCALR) inventory was studied. The construct issue of academic self-concept was explored by comparing the SCALR to the academic portion of the Multidimensional Self Concept Scale (MSCS). The SCALR contains 44 items (four scales of 11 items each). The SCALR version for grades 7 through 12 was administered to 1,136 eighth graders and 863 11th graders from schools participating in the Positive Attitudes in Tennessee Schools Project. The 150-item MSCS was administered to 287 students, 200 of whom had matching SCALR data. The SCALR and MSCS academic scores were compared, and correlation coefficients were obtained. Results indicate the SCALR inventory does have validity as a measure of academic self-concept, and significant correlations between SCALR and MSCS results suggest that both measure the same theoretical construct of academic self-concept. Three tables present study data. A 14-item list of references is included. (SLD)

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The Self Concept as a Learner Inventory: A Cross-Validation Study

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THE SELF CONCEPT AS A LEARNER: A CROSS-VALIDATION STUDY

Introduction

Reviews of self concept research (e.g., Benner, Frey, & Gilberts, 1983; Burns, 1979; Shavelson, Hubner, & Stanton, 1976; Wylie, 1979) emphasize the lack of theoretical basis and the poor quality of measurement instruments used in studies relating to self concept. A general definition of self concept is a person's complete perception of him/herself and the attitudes, feelings, and knowledge surrounding a person's abilities, skills, appearance, and social acceptability (Byrne, 1983). Although this definition is widely accepted, research has not revealed a clear and concise operational definition of self concept. Marsh (1985, p. 422) refers to self concept as "a hypothetical concept whose usefulness must be demonstrated by investigations of its construct validity." Shavelson et al. (1976), in an attempt to instill an operational definition from many studies, identified 17 conceptual dimensions on which the multiplicity of self concept definitions could be classified. Shavelson and his colleagues concluded that seven crucial characteristics can be attributed to self concept and described the construct as: organized, multidimensional, hierarchical, stable, developmental. evaluative, and differential. Consensus has apparently been reached on a few aspects of self concept, including: 1) that interaction with "significant others" strongly influences development; and 2) that self concept comprises at least three, and sometimes four, differentiable facets including academic, social, physical, and sometimes emotional dimensions.

Byrne (1983) states that general self concept and academic self concept have been recognized by researchers as separate constructs. Researchers, even though the multidimensional aspects of self concept have been accepted, have questioned whether it is possible to measure academic and general self concept as separate

constructs (Pugh, 1976; Shavelson et al., 1976). However, research has shown that although academic self concept correlated with general self concept, it can be distinguished from general self concept.

Although the relationship between self concept and achievement has not been clearly established (Hansford & Hattie, 1982), many persons, especially educators, have assumed that achievement and ability indices are strongly related to self assessments of achievement and ability, and to overall self regard (Wylie, 1979). Self concept theorists such as Marsh and Parker (1984) and Shavelson and Bolus (1982) maintain that academic achievement measures should be more highly correlated with academic self concept than with general self concept and meta-analysis has confirmed this correlation (Hansford & Hattie, 1982). Marsh extended this reasoning with the position that academic achievements in particular areas should be most highly correlated with self concept in the same area, less highly correlated with self concept in other areas, and least highly correlated with self concept in other academic areas (1985).

Crandall (1973) addressed what he feels is the major problem found in self concept research when he stated that the "central problem in self-esteem research is validity..." (p. 51). He goes on to say that there is a lack of statistical evidence to support the existing measures of self concept, making them easy to criticize. Wylie (1974) found that either many instruments lack any evidence of reliability and/or validity, or the research done on these instruments was of poor quality. In a review of self concept literature, Lakey (1977) found more than 200 measures reported in the literature. Lakey also found that most of these measures have not been validated against the independent measures of the theoretical constructs of self concept. Despite the agreement that there is a crucial need for reliability and validity data, few studies have addressed this problem (Byrne, 1983).

Given the controversy surrounding measures of self concept, this paper attempts to show reliability and validity data for the *Self Concept as a Learner Revised* (SCALR) inventory. It will also address the construct issue of academic concept by comparing the SCALR to the academic portion of the *Multidimensional Self Concept Scale* (MSCS) developed by Bracken (1991).

METHOD

Instrumentation

The two instruments involved in this study are the *Self Concept as a Learner Revised* (SCALR) and the *Multidimensional Self Concept Scale* (MSCS).

The SCALR was designed and is being used to obtain measures of students' perceptions of themselves as learners as part of the Positive Attitudes in Tennessee Schools (PATS) Project begun by the Tennessee Department of Education. Since the PATS Project seeks to motivate students to stay in school, in part by effecting changes designed to improve student views of themselves as learners, the instrument developed for the project obtains measures based on perceptions that are cognitive and directly related to learning and behaving in a class context. Perceptions sought are not subject specific. The inventory was condensed and adapted from an instrument developed by Walter B. Waetjen of the University of Maryland.

The current version consists of 44 items comprising four scales of eleven items each:

1) Motivation: the degree to which the student perceives self as motivated to do school work and participate in learning activities
2) Task Orientation: the way a student sees self in relation to various learning activities

3) Problem Solving: the student's perception of self as a problem solver

4) Class Membership: the manner in which the student views self in relation to other members of the class

Two forms of the inventory have been developed, one for elementary students and one for grades 7-12. This study is only concerned with the latter.

Table 1 shows the reliability estimates of internal consistency of the scales calculated using Cronbach's alpha and the intercorrelations for the 1991 administration of all schools involved in the PATS Project.

Table 1

SCALR Reliabilities and Intercorrelations by Scale and Grade

Scale	Alpha Coefficients	
	Grade 8 (N=1136)	Grade 11 (N=863)
Motivation	.69	.72
Task Orientation	.74	.74
Problem Solving	.79	.77
Class Membership	.78	.82
Total	.91	.91

Scale	Scale Intercorrelations			
	Motivation	Task	Problem	Class
Grade 8 (N=1136)				
Motivation	_			
Task Orientation	0.68	_		
Problem Solving	0.60	0.73	_	
Class Membership	0.57	0.56	0.55	_
Total	0.84	0.88	0.85	0.80
Grade 11 (N=863)				
Motivation	_			
Task Orientation	0.70	_		
Problem Solving	0.56	0.68	_	
Class Membership	0.59	0.54	0.51	_
Total	0.85	0.87	0.82	0.80

Note: All correlations are significant at the .01 level.

The MSCS is a measure of global self concept. It is made up of 150 items divided into six components: Social, Competence, Affect, Academic, Family, and Physical. The instrument has been evaluated extensively, and has very high reliability and validity results. The total scale reliability coefficient is .98, and the Academic subscale reliability coefficient is .91. Cross validation studies between the MSCS and the Coopersmith and the Piers-Harris were also high (See table 2). It is now in publication through the Pro-Ed Corporation.

Procedure

All eighth grade students from one school and all eleventh grade students from another were used in this study. Both schools are participants in the PATS Project. The SCALR was administered to both schools as part of the PATS Project in March of 1991. The MSCS was administered about one month later. A total of 287 students were administered the MSCS, 200 of whom had matching SCALR data available. The four subscales and total score for each individual on the SCALR was compared with their score on the Academic subscale of the MSCS. Correlation coefficients were then obtained.

RESULTS

Table 3 shows the means and the correlations from the scales. All correlations were in the moderate range and significant at the .01 level. Three of the four subscale were similar in strength (Motivation, Task Orientation, and Problem Solving). The lowest correlation was found in the Class Membership dimension. This is expected since this subscale measures a social aspect of self concept in that it measures the student views of self in relation to other members of the class. The highest correlation was found between the total score on the SCALR and the Academic subscale of the MSCS. This indicates that the construct of "academic self concept" is similar in each of the instruments.

Table 2

Correlations Between Coopersmith Total Test Score and the MSCS and Piers-Harris Scales and Total Test Scores*

MSCS	Social	Compentence	Affect	Academic	Family	Physical	Total Test	Coopersmith Total Test
Piers-Harris								
Behavior	.44	.62	.59	.58	.68	.51	.65	.72
Intellectual / School Status	.57	**.71**	.68	**.75**	.62	.72	.78	.77
Physical Appearance and Attributes	.61	.68	.70	.72	.62	.83	.80	.68
Anxiety	.65	.77	**.77**	.70	.60	.73	.80	.73
Popularity	**.66**	.64	.67	.63	.55	.69	.73	.71
Happiness and Satisfaction	.59	.70	**.72**	.65	.63	.73	.73	.69
Total Test	.83	.64	.78	.73	.71	.77	**.85**	**.83**
Coopersmith Total Test	.57	.64	.65	.64	.72	.57	.73	---

* Bold faced coefficients are those from theoretically similar scales.

Table 3

SCALR and MSCS Means, Standard Deviations, and Correlations by Scale

Scale	Mean	Standard Dev
SCALR		
Motivation	37.93	5.47
Task Orientation	38.75	6
Problem Solving	36.65	5.65
Class Membership	40.54	6.98
Total	153.87	20.28
MSCS		
Academic	73.28	10.38

	Correlation Matrix				
Scale	Motivation	Task	Problem	Class	Total
Academic	.55	.59	.55	.45	.63

Note: All correlations are significant at the .01 level.

CONCLUSIONS

The findings of this study show that the *Self Concept as a Learner* inventory does have validity as a measure of academic self concept. The significant correlations found between the SCALR and the MSCS suggest that both instruments are measuring the same theoretical construct of academic self concept. The correlations also bring up future research ideas. The lower correlation between Class Membership and the Academic subscale may suggest that there is differentiation between academic and general self concept. Future analyses will compare all of the subscales of the MSCS with all of the subscales of the SCALR. Other research being conducted on the SCALR involves merging achievement data with the self concept factors to see if the two relate.

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